



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,664	04/16/2004	Jeffrey A. Brown	0236.0001C	8488

25944 7590 11/21/2006

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
----------

PHAM, MINH CHAU THI

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/825,664

Applicant(s)

BROWN ET AL.

Examiner

Minh-Chau T. Pham

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6, 9-20 and 23-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al (6,277,176 B1).

Tang et al teach a method of filtering a gas flow comprising the steps of receiving the gas flow through a duct or housing (1) containing a filter (4, col. 1, lines 14-18), placing the filter in motion in a direction perpendicular to a direction of motion of the gas flow, and impacting particulates matter suspended within the gas flow with the filter as a result of placing the filter in motion wherein upon impact the particulate matter is removed from the gas flow (see col. 2, lines 40-67). Tang et al further teach the air filter element can be in the form of a general planar element such as a fan blade or a fan blade insert (see col. 6, lines 28-29), which is clearly a non-fibrous filter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 8, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al (6,277,176 B1).

Tang et al disclose a method of filtering a gas flow comprising the steps of receiving the gas flow through a duct or housing (1) containing a filter (4, col. 1, lines 14-18), placing the filter in motion in a direction perpendicular to a direction of motion of the gas flow, and impacting particulates matter suspended within the gas flow with the filter as a result of placing the filter in motion wherein upon impact the particulate matter is removed from the gas flow (see col. 2, lines 40-67). Tang et al further disclose the air filter element can be in the form of a general planar element such as a fan blade or a fan blade insert (see col. 6, lines 28-29), which is clearly a non-fibrous filter. Claims 7, 8, 21 and 22 differ from the disclosure of Tang et al in that the method has the step of placing the filter in motion at a speed that is at least one of equal to and greater than, or two to one thousand times greater than, a speed of the filtered air flow scaled by a ratio of a filter pore average width to a filter pore average depth. Regarding the limitations of claims 7, 8, 21 and 22, the specification contains no disclosure of either the critical nature of these requirements or any unexpected results arising therefrom, and as such these requirements would be arbitrary and therefore obvious. Applicants **must** show that these requirements are critical. In re Woodruff, 16 USPQ 2d 1934.

***Response to Amendment***

Applicant's arguments filed on September 6, 2006 have been fully considered but they are not persuasive.

Applicant argues that the cited reference "Fortune or Silverman does not teach a housing containing a non-fibrous filter". The Examiner now drops both Fortune and Silverman references, and newly introduces Tang et al (6,277,176 B1) as the primary reference wherein Tang et al teach a method of filtering a gas flow comprising the steps of receiving the gas flow through a duct or housing (1) containing a filter (4, col. 1, lines 14-18), placing the filter in motion in a direction perpendicular to a direction of motion of the gas flow, and impacting particulates matter suspended within the gas flow with the filter as a result of placing the filter in motion wherein upon impact the particulate matter is removed from the gas flow (see col. 2, lines 40-67). Tang et al further teach the air filter element can be in the form of a general planar element such as a fan blade or a fan blade insert (see col. 6, lines 28-29), which is clearly a non-fibrous filter, as claimed.


Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection, as discussed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

Art Unit: 1724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**Minh-Chau Pham**  
**Patent Examiner**  
**Art Unit : 1724**  
**November 17, 2006**